

Notice of Allowability

Application No.

10/806,731

Examiner

Edwin A. León

Applicant(s)

HOLUB, FRANKLIN ANTHONY

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and IDS of 10/03/06 and Interview Summary of October 14, 2006.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 10/03/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 10/14/06
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



TRUCT NGUYEN
PRIMARY EXAMINER
Part of Paper No./Mail Date 20061029

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark Harrington on October 14, 2006.

The application has been amended as follows:

1. (Currently amended) An electrical connector adapted to connect to a mating electrical connector comprising:

electrical contacts; and

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, and a mating electrical connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch; and

a second housing member connected to the first housing member and having a fulcrum rib, ~~wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch and a lever arm extending rearward from the front end of the latch, and wherein the lever arm is sized and shaped to pivot about and against a portion~~ the fulcrum rib of the second housing member.

2. (Original) An electrical connector as in claim 1 wherein the first housing member comprises a first deflectable arm connecting the latch to the first housing member, wherein the first deflectable arm is connected to the latch at the front end of the latch.

3. (Original) An electrical connector as in claim 2 wherein the first housing member comprises a second deflectable arm connecting the latch to the first housing member, wherein the a second deflectable arm is connected to the latch at the front end of the latch.

4. (Original) An electrical connector as in claim 3 wherein the first and second deflectable arms are connected to the first housing member proximate a center section of the latch.

5. (Currently amended) An electrical connector comprising:

electrical contacts; and

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, and a mating electrical

connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch; and

a second housing member connected to the first housing member and having a fulcrum rib, ~~wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch and a lever arm extending rearward from the front end of the latch, and wherein the lever arm is adapted to pivot on top of a portion~~ against the fulcrum rib of the second housing member,

wherein a rear end of the latch comprises a finger contact section, and a wherein ~~the portion of the second housing member comprises a fulcrum rib contacting~~ a bottom side of the lever between the front end and the rear end.

6. (Currently amended) An electrical connector comprising:

electrical contacts; and

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, and a mating electrical connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch; and

a second housing member connected to the first housing member and having a fulcrum rib, ~~wherein the first housing member comprises a mating electrical~~

~~connector latch comprising a latch surface at a front end of the latch and a lever arm extending rearward from the front end of the latch,~~ and wherein the lever arm is adapted to pivot ~~on top of a portion~~ against the fulcrum rib of the second housing member,

wherein a rear end of the latch comprises a projection located beneath a ledge of the second housing member.

7. (Original) An electrical connector as in claim 6 wherein the ledge of the second housing member and the projection on the rear end of the latch for a latch overstress protection system adapted to limit movement of the second end of the latch in an outward direction.

8. (Original) An electrical connector as in claim 1 further comprising an electrical conductor seal, wherein the second housing member comprises a seal retainer which is connected to the first housing member to retain the seal with the first housing member.

9. (Currently amended) An electrical connector comprising:

electrical contacts; and

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch; and

a second housing member connected to the first housing member and having a fulcrum rib, ~~wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch and a lever arm extending rearward from the front end of the latch,~~ and wherein the lever arm is adapted to pivot ~~on top of a portion~~ against the fulcrum rib of the second housing member,

wherein the second housing member comprises a grip rib behind a rear end of the latch which has a top surface that is located vertically above the rear end of the latch only when the rear end of the latch is depressed inward.

10. (Currently amended) An electrical connector housing adapted to connect to a housing of a mating electrical connector comprising:

a first housing member comprising a pivotable mating electrical connector latch, the latch having a first end with a latching surface adapted to connect the first housing and the mating electrical connector and an opposite second end; and
a second housing member connected to the first housing member and having a fulcrum rib, the pivotable mating electrical connector latch having a lever arm adapted to pivot against the fulcrum rib of the second housing, the second housing member comprising a latch overstress protection section comprising a portion of the second housing member being sized and shaped to be contacted by the second end of the latch to limit pivotal movement of the second end of the latch in an outward direction.

11. (Currently amended) An electrical connector housing as in claim 10 ~~wherein the second housing member comprises a pivot rib,~~ wherein the latch is located on top of the ~~pivot~~ fulcrum rib and is adapted to pivot on the ~~pivot~~ fulcrum rib to move the latching surface inward and outward.

12. (Original) An electrical connector housing as an claim 10 wherein the first housing member comprises a first deflectable arm connecting the latch to the first housing member, wherein the first deflectable arm is connected to the latch at the first end of the latch.

13. (Previously presented) An electrical connector as in claim 12 wherein the first housing member comprises a second deflectable arm connecting the latch to the first housing member, wherein the second deflectable arm is connected to the latch at the first end of the latch.

14. (Original) An electrical connector as in claim 13 wherein the first and second deflectable arms are connected to the first housing member proximate a center section of the latch.

15. (Currently amended) An electrical connector as in claim 10 wherein the second end of the latch comprises a finger contact section, ~~and a wherein a portion of the second housing member comprises a fulcrum rib contacting a bottom side of the lever between the first end and the second end.~~

16. (Original) An electrical connector as in claim 10 wherein the second end of the latch comprises a projection located beneath the latch overstress protection section of the second housing member.

17. (Original) An electrical connector as in claim 10 further comprising an electrical conductor seal, wherein the second housing member comprises a seal retainer which is connected to the first housing member to retain the seal with the first housing member.

18. (Original) An electrical connector as in claim 10 wherein the second housing member comprises a grip rib behind the second end of the latch which has a top surface that is located vertically above the second end of the latch only when the second end of the latch is depressed inward.

19. (Currently amended) An electrical connector housing comprising:

a main housing having a movable mating electrical connector latch, the latch comprising a front end with a latching surface adapted to connect the first housing and the mating electrical connector and an opposite rear end with a finger contact section; and

a seal retainer adapted to be connected to the main housing to retain a seal inside the main housing and having a fulcrum rib, the movable mating electrical connector latch having a lever arm adapted to pivot against the fulcrum rib of the seal retainer, the seal retainer comprising ~~a fulcrum section for the latch to pivot on~~ and a grip rib behind the rear end of the latch which has a top surface that is

located vertically above the rear end of the latch only when the rear end of the latch is depressed inward.

20. (Original) An electrical connector housing as in claim 19 wherein the first housing member comprises two deflectable arms connecting the latch to the first housing member, wherein the deflectable arms are connected to the latch at the front end of the latch and connected to the first housing member proximate a middle section of the latch.

21. (Currently amended) An electrical connector comprising:

electrical contacts;

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, and a mating electrical connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch;

a seal on the first housing member; and

a seal retainer housing member connected to the first housing member and retaining the seal on the first housing member, the seal retainer housing member having a fulcrum rib and the lever arm is adapted to pivot against the fulcrum rib of the seal retainer housing member,

~~wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch and a lever arm extending rearward from the front end of the latch, and wherein the lever arm comprises a~~

user contact surface at a rear end of the lever arm which is located directly above the seal retainer housing member.

22. (Previously presented) An electrical connector as in claim 21 wherein the mating electrical connector latch comprises two deflectable arms fixedly attached to the first housing member at two spaced points.

23. (Previously presented) An electrical connector as in claim 22 wherein the two deflectable arms comprise front ends connected to the front end of the latch and rear ends connected to the two spaced points.

24. (Currently amended) An electrical connector comprising:

electrical contacts; and

a first housing member having contact receiving areas, wherein the electrical contacts are located in the contact receiving areas, and a mating electrical connector latch comprising a latch surface at a front end of the latch adapted to connect the first housing and the mating electrical connector and a lever arm extending rearward from the front end of the latch; and

a second housing member connected to the first housing member, the second housing member having a fulcrum rib and the lever arm is adapted to pivot against the fulcrum rib of the second housing member.

~~wherein the first housing member comprises a mating electrical connector latch comprising a latch surface at a front end of the latch and a lever arm extending~~

~~rearward from the front end of the latch,~~ wherein the lever arm comprises a user contact surface at a rear end of the lever arm, wherein the mating electrical connector latch comprises two deflectable arms wherein the two deflectable arms comprise front ends connected to the front end of the latch and rear ends fixedly attached to the first housing member at two spaced points, wherein the rear ends connect the latch to the first housing member.

Allowable Subject Matter

2. Claims 1-24 are allowed.

The following is an examiner's statement of reasons for allowance:

The references fail to teach, disclose, or suggest, either alone or in combination, the latch surface adapted to connect the first housing and the mating electrical connector and in combination with the rest of the limitations of the base claims.

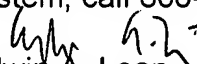
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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